ARTICLE CRITIQUE CHECKLIST

INTRODUCTION

Problem	**Yes**	**No**	**N/A**
Is there a statement of the problem or a qualitative topic of study?	____	____	____
Does the problem of topic indicate a particular focus of study?	____	____	____
Is the problem “researchable,” that is, can it be investigated through the collection and analysis of data?	____	____	____
Is the background information on the problem presented?	____	____	____
Is the educational significance of the problem discussed?	____	____	____
Does the quantitative problem statement indicate the variables of interest and the specific relationship between those variables that were investigated?	____	____	____
Does the qualitative problem statement provide a general indication of the research topic or issue?	____	____	____
When necessary, are variables directly or operationally defined?	____	____	____
Does the researcher have the knowledge and skill to carry out the proposed research?	____	____	____

Review of the Related Literature

Is the review comprehensive?	____	____	____
Are all references cited relevant to the problem under investigation?	____	____	____
Are most of the sources primary; i.e., are there only a few or no secondary sources?	____	____	____
Have the references been analyzed and critiqued, and the results of various studies compared and contrasted? That is, is the review more than a series of abstracts or annotations?	____	____	____
Is the relevancy of each reference explained?	____	____	____
Is the review well organized?	____	____	____
Does it logically flow in such a way that the references least related to the problem are discussed first and the most related references are discussed last?	____	____	____

	Yes	No	N/A
Does it educate the reader about the problem or topic?	____	____	____
Does the review conclude with a summary and interpretation of the literature and its implications for the problem investigated?	____	____	____
Do the implications discussed form an empirical or theoretical rationale for the hypotheses that follow?	____	____	____
Are references cited completely and accurately?	____	____	____

Hypothesis

	Yes	No	N/A
Are specific questions to be answered listed or specific hypotheses to be tested stated?	____	____	____
Does each hypothesis state an expected relationship or difference?	____	____	____
If necessary, are variables directly or operationally defined?	____	____	____
Is each hypothesis testable?	____	____	____

METHOD

Participants

	Yes	No	N/A
Are the size and major characteristics of the population studied described?	____	____	____
Are the accessible and target populations described?	____	____	____
If a sample was selected, is the method of selecting the sample clearly described?	____	____	____
Does the method of sample selection suggest any limitations or biases in the sample?	____	____	____
For example, is stratified sampling used to obtain sample subgroups?	____	____	____
Are the size and major characteristics of the sample described?	____	____	____
Does the sample size meet the suggested guideline for minimum sample size appropriate for quantitative analyses?	____	____	____

Instruments

	Yes	No	N/A
Do instruments and their administration meet guidelines for protecting human subjects?	____	____	____

	Yes	No	N/A
Have needed permissions been obtained?	____	____	____
Is the rationale given for the selection of the instruments (or measurements) used?	____	____	____
Is each instrument described in terms of purpose, content, validity, and reliability?	____	____	____
Are the instruments appropriate for measuring the intended variables?	____	____	____
Does the researcher have the needed skills or experience to construct or administer an instrument?	____	____	____
Is evidence presented to indicate that the instruments are appropriate for the intended sample? (For example, is the reading level of an instrument suitable for sample participants?)	____	____	____
If appropriate, are subtests reliabilities given?	____	____	____
If an instrument was developed specifically for the study, are the procedures involved in its development and validation described?	____	____	____
If an instrument was developed specifically for the study, are administration, scoring or tabulating, and interpretation procedures fully described?	____	____	____
Is the correct type of instrument used for data collection? (For example, using a norm-referenced instrument when a criterion-referenced one is more suitable.)	____	____	____

Design and Procedures

	Yes	No	N/A
Are the design and procedures appropriate for examining the research question or testing the hypotheses of the study?	____	____	____
Are the procedures described in sufficient detail to permit them to be replicated by another researcher?	____	____	____
Do procedures logically relate to each other?	____	____	____
Are instruments and procedures applied correctly?	____	____	____
If a pilot study was conducted, are its execution and results described as well as its impact on the subsequent study?	____	____	____
Are control procedures described?	____	____	____

	Yes	No	N/A
Did the researcher discuss or account for any potentially confounding variables that he or she was unable to control?	____	____	____
Is the application of the qualitative method chosen described in detail?	____	____	____
Is the context of the qualitative study described in detail?	____	____	____

RESULTS

Are appropriate descriptive statistics presented?	____	____	____
Was the probability level at which the results of the tests of significance were evaluated specified in advance of the data analysis?	____	____	____
Was every hypothesis tested?	____	____	____
If parametric tests were used, is there evidence that the researcher avoided violating the required assumptions for parametric tests?	____	____	____
Are the tests of significance described appropriate, given the hypotheses and design of the study?	____	____	____
Was the inductive logic used to produce results in a qualitative study made explicit?	____	____	____
Are the tests of significance interpreted using the appropriate degrees of freedom?	____	____	____
Are the results clearly described?	____	____	____
Are the tables and figures (if any) well organized and easy to understand?	____	____	____
Are the data in each table and figure described in the text?	____	____	____

DISCUSSION, CONCLUSIONS, OR RECOMMENDATIONS

Is each result discussed in terms of the original hypothesis or topic to which it relates?	____	____	____
Is each result discussed in terms of its agreement or disagreement with previous results obtained by other researchers in other studies?	____	____	____
Are generalizations consistent with the results?	____	____	____
Are the possible effects of uncontrolled variables on the results discussed?	____	____	____

	Yes	No	N/A
Are theoretical and practical implications of the findings discussed?	____	____	____
Are recommendations for future action made?	____	____	____
Are the suggestions for future action based on practical significance or on statistical significance only; i.e., has the author avoided confusing practical and statistical significance?	____	____	____

ABSTRACT OR SUMMARY

Is the problem restated?	____	____	____
Are the number and type of subjects and instruments described?	____	____	____
Is the design used identified?	____	____	____
Are procedures described?	____	____	____
Are the major results and conclusions restated?	____	____	____

TYPE-SPECIFIC EVALUATION CRITERIA

In addition to general criteria that can be applied to almost any study, additional questions should be asked depending on the type of research represented by the study. In other words, there are concerns that are specific to historical studies, and likewise to other qualitative, survey, correlational, causal-comparative, and experimental studies.

Qualitative Research in General	***Yes***	***No***	***N/A***
Does the topic statement provide a general sense of the study focus?	____	____	____
Is the purposive sampling procedure described and related to the study focus?	____	____	____
Is each data collection strategy described?	____	____	____
Is the role the researcher assumed stated (e.g., observer, participant observer, interviewer, etc.)?	____	____	____
Is the research site and the researcher's entry into it described?	____	____	____
Were the data collection strategies used appropriately, given the purpose of the study?	____	____	____
Were strategies used to strengthen the validity and reliability of the data (e.g., triangulation)?	____	____	____
Is there a description of how any unexpected ethical issues were handled?	____	____	____
Were strategies used to minimize observer bias and observer effect described?	____	____	____
Are the researcher's reactions and notes differentiated from descriptive field notes?	____	____	____
Are data coding strategies described and examples of coded data given?	____	____	____
Is the inductive logic applied to the data to produce results stated in detail?	____	____	____
Are conclusions supported by data (e.g., are direct quotes used to illustrate points made)?	____	____	____

Observation Studies	**Yes**	**No**	**N/A**
Are observational variables defined?	____	____	____
How were observers trained?	____	____	____
Did different observers work and score independently?	____	____	____
Were observers required to observe only one behavior at a time?	____	____	____
Was a coded recording instrument used?	____	____	____
Are the qualifications and special training of the observers described?	____	____	____
Was the level of interobserver reliability sufficiently high?	____	____	____
Were efforts made to overcome observer bias and observer effect?	____	____	____
Was observation of subjects the most appropriate approach for data collection (as opposed to use of some unobtrusive measure)?	____	____	____
Was a description of how the observational data were analyzed provided?	____	____	____

Historical Research	**Yes**	**No**	**N/A**
Were the sources of data related to the problem mostly primary?	____	____	____
Was each piece of data subjected to external criticism?	____	____	____
Was each piece of data subjected to internal criticism?	____	____	____
Does the researcher examine the possibility of personal bias in the study analysis and conclusion?	____	____	____
Are causal inferences or conclusions warranted given the data studied?	____	____	____
Is the report of the study an integrated, synthesized, chronological presentation of the results?	____	____	____

Survey — Questionnaire Studies	**Yes**	**No**	**N/A**
Are questionnaire validation procedures described?	____	____	____
Was the questionnaire pretested?	____	____	____
Are pilot study procedures and results described?	____	____	____

Are directions to questionnaire respondents clear?	____	____	____
Does each item in the questionnaire relate to one of the objectives of the study?	____	____	____
Does each questionnaire item deal with a single concept?	____	____	____
When necessary, is a point of reference given for questionnaire items?	____	____	____
Does the cover letter explain the purpose and importance of the study and give the potential responder a good reason for cooperating?	____	____	____
If appropriate, is confidentiality or anonymity of responses assured in the cover letter?	____	____	____
What is the percentage of returns and how does it affect the study results?	____	____	____
Are followup activities to increase returns described?	____	____	____
If the response rate was low, was any attempt made to determine any major differences between responders and nonresponders?	____	____	____
Are data analyzed in groups or clusters rather than a series of many single variable analyses?	____	____	____

Survey — Interview Studies	**Yes**	**No**	**N/A**
Were the interview procedures pretested?	____	____	____
Are pilot study procedures and results described?	____	____	____
Does each item in the interview guide relate to a specific objective of the study?	____	____	____
When necessary, is a point of reference given in the guide for interview items?	____	____	____
Are leading questions avoided in the interview guide?	____	____	____
Is the language and complexity of the questions appropriate for the participants?	____	____	____
Does the interview guide indicate the type and amount of prompting and probing that was permitted?	____	____	____
Are the qualifications and special training of the interviewers described?	____	____	____
Is the method used to record responses described?	____	____	____
Did the researcher use the most reliable, unbiased method of recording responses that could have been used?	____	____	____

Did the researcher specify how the responses to semistructured and unstructured items were quantified and analyzed?	____	____	____

Correlation — Relationship Studies	**Yes**	**No**	**N/A**
Were variables carefully selected; i.e., was a shotgun approach avoided?	____	____	____
Is the rationale for variable selection described?	____	____	____
Are conclusions and recommendations based on values of correlation coefficients corrected for attenuation or restriction in range?	____	____	____
Do the conclusions avoid suggesting causal relationships between the variables investigated?	____	____	____

Correlation — Prediction Studies	**Yes**	**No**	**N/A**
Is a rationale given for selection of predictor variables?	____	____	____
Is the criterion variable well defined?	____	____	____
Was the resulting prediction equation validated with at least one other group?	____	____	____

Causal — Comparative Studies	**Yes**	**No**	**N/A**
Are the characteristics or experiences that differentiate the groups (the independent variable) clearly defined or described?	____	____	____
Are critical extraneous variables identified?	____	____	____
Were any control procedures applied to equate the groups on extraneous variables?	____	____	____
Are causal relationships found discussed with due caution?	____	____	____
Are plausible alternative hypotheses discussed?	____	____	____

Experimental Research	**Yes**	**No**	**N/A**
Was an appropriate experimental design selected?	____	____	____
Is a rationale for design selection given?	____	____	____
Are sources of invalidity associated with the design identified and discussed?	____	____	____
Is the method of group formation described?	____	____	____
Was the experimental group formed in the same way as the control group?	____	____	____

Were groups randomly formed and the use of existing groups avoided?	____	____	____
Were treatments randomly assigned to groups?	____	____	____
Were critical extraneous variables identified?	____	____	____
Were any control procedures applied to equate groups on extraneous variables?	____	____	____
Were possible reactive arrangements (e.g., the Hawthorne effect) controlled for?	____	____	____
Were tables clear and pertinent to the research results?	____	____	____
Were the results generalized to the appropriate group?	____	____	____